

Abstract of the Disclosure

A method of and a system for generating a dense pattern of scan lines. In a preferred configuration, a laser beam is directed into an inline beam dithering mechanism which dithers the beam over an angle parallel to the axis of rotation of the rotating facet wheel. The combination of the dithering mechanism and the scanning motion of the rotating facet wheel creates a dense scan pattern. Return light is retrodirectively collected and by a collection element such as a collection lens onto a detector. A beam redirector such as a cone-shaped device having openings on both ends and a reflecting internal surface is disposed between the collection lens and the detector to redirect off-axis spot onto the detector. The system and method is applicable to both single and multiple beam systems and single and multiple window scanners.